

**Amendments to the Drawings:**

The attached sheet of drawings includes a new Fig 4. This new figure includes a Doppler radar to measure speed, and a DSP to compute a channel quality (e.g. SNR) and coefficients. Fig. 1 – 4, replaces the original sheet including Fig. 1 – 3.

Attachment: New Sheet

## **REMARKS/ARGUMENTS**

### Drawings and Specification

The drawings were objected to under 37 CFR 1.83(a), for not showing the limitations of means for measuring the speed of the mobile communication device; means for measuring a channel quality indicator; and means for using the measurements of speed and channel quality indicator to determine a value for adaptation coefficient of an adaptive equalizer.

A new figure 4 ("New Sheet") is provided showing various means. A Doppler shift measurement is already described as an example means for measuring speed (p. 5 middle L 6 – 12); if an apparatus is desired, a Doppler radar is offered. The specification is amended to mention a radar or an accelerometer.

A data processor, DSP (or CPU), is an example means for measuring channel quality, like an SNR, which may be computed from a signal and its adjacent channels; the DSP provides the means for using the speed and quality signal to determine an adaptation coefficient. No new matter is introduced because the original claims recited the existence of such means and the claims are now illustrated.

### Claim Objections

Claims 1 and 8 were objected to because of the following informalities: the phrase "the adaptation coefficient" lacks antecedent basis. These claims are amended.

### Claim Rejections – 35 USC § 102

Claims 1-2, 7-9, and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by the instant application's disclosed prior art.

As to Claims 1 and 8, Applicant respectfully traverses the rejection and submits there is some misunderstanding and perhaps the grammar could have been written more clearly in one of the sentences; however, when the rest of the paragraph (p. 4-5) and other paragraphs and entire application are considered; the meaning should be clear. The instant application does not state nor suggest Claim 1's "using the speed measurement and channel quality measurement to determine a value for the adaptation coefficient of an adaptive equalizer (Pg. 5, Lines 3-10)" as alleged in the Office Action. Instead, P. 5 L. 3 – 10 state the "conventional approach in prior art has been to define the adaptation coefficient as a function of the UE speed". Then, the subsequent lines continue on to discuss "speed" and changes in speed cause Doppler shifts. There is no mention of the coefficient being a function of an SNR; in the sentence describing "prior art" on page 5, there are no

words like “SNR” because it is not prior art. On page 4, Lines 13 – 20, as indicated by the Examiner, there is a conjecture of how SNR may be related to the adaptation coefficient, but then goes on to provide secondary considerations as to why the conjecture may or may not be implemented as conjectured – i.e. because of possible loss of tracking if the magnitude of the coefficient were to be changed to much. More important, the application goes on to affirm elsewhere that the “prior art considered the adaptation coefficient **ONLY as a function of the UE speed**” for example on p. 5 (last two lines); so **ONLY speed** information has been used before and only this usage is considered prior art in the instant application.

As to claims 2 and 9, contrary to the assertion the instant application's does NOT that the channel quality indicator (signal to noise ratio) is prior art. The pages offered (Pg. 2, Lines 8-13; Pg. 4, Lines 13- 20) do not state “using channel quality indicator to determine a value for the adaptation coefficient”. On the contrary, p. 2 does not state what information is used to compute coefficients, and does not even discuss coefficients altogether. The meaning of paragraph on page 4, continuing onto page 5, has already been explained above and should be clear already.

Therefore Claims 1, 8, 2, 9 should be allowable over the prior art described in the instant application, as clearly stated on page 5 for example, second the last line: “The prior art considered the adaptation coefficient only as a function of the UE speed”.

Claims 7 and 14 should be allowable by virtue of their dependency on claims that are believed allowable.

### Claim Rejections – 35 USC § 103

Claims 3 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over the instant application's disclosed prior art, and further in view of Farhang-Boroujeni et al. hereafter referred to as Farhang (US 6,990,153).

Claims 3 and 10 are believed allowable by virtue of their dependency on claims that are believed allowable. In addition, the By the way of a side comment, Farhang appears to use the phrase “channel estimation” to refer to a specific set of steps like Col. 5 L 12 - 45, -- in a manner that the Applicant does not. Further, Farhang does not indicate what information his coefficients calculations depend on; he almost doesn't even mention “coefficients”. So, there is lack of obviousness and incentive to combine Farhang with the instant application.

Claims 4-6 and 11-13 were rejected under 35 U.S.C. 103(a) as being unpatentable over the instant application's disclosed prior art, and further in view of Hooli et al (Chip-Level Channel Equalization in WCDMA Downlink, EURASIP Journal on Applied Signal Processing 2002:8, pages 757-770, 2002 Hindawi

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Claims 4-6 and 11-13 should be allowable by virtue of their dependency on claims that are believed allowable.

Respectful request is made for reconsideration of the application, as amended, and for an issuance of a Notice of Allowance. Please charge any missing fees to the deposit account 20-0668.

Respectfully submitted,

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